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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/754,443	01/08/2004	Stephen S. Francis	14710-004001	7986
26181 7590 10/31/2007 FISH & RICHARDSON P.C. PO BOX 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER ZHE, MENG YAO	
			ART UNIT 2195	PAPER NUMBER
			MAIL DATE 10/31/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/754,443

Applicant(s)

FRANCIS ET AL.

Examiner

MengYao Zhe

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 08 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 5/8/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-24 are presented for examination.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-13, 17, 23-24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The current focus of the Patent Office in regard to statutory inventions under 35 U.S.C. § 101 for method claims and claims that recite a judicial exception (software) is that the claimed invention recite a practical application. Practical application can be provided by a physical transformation or a useful, concrete and tangible result. No physical transformation is recited and additionally, the final result of the claim is merely determining one or more plans which is not a tangible result because the plan is merely determined by a system, and it remains in the system, unknown and unused by any user. Moreover the determined plans are not being used for anything further, thus making the result not useful. The following link on the World Wide Web is for the United States Patent And Trademark Office (USPTO) policy on 35 U.S.C. §101.

http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.pdf

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. The following claim languages are unclear and indefinite:

- i) Claim 1, line 1, it is uncertain as to what "a PVR" stands for <i.e. what is it? Please do not use abbreviations.>

It is unclear as to what the relationship is between "a schedule" in line 5 and "a recording schedule" in line 1 <i.e. are they the same schedule?>.

Lines 4-5, It is unclear what it means to determine "solutions for the...jobs based on a schedule" <i.e. what is a schedule? Isn't the method trying to determine a recording schedule? Where is this schedule coming from?>.

It is not understood what the relationship is between "one or more solutions" in line 4 and "a recording schedule" <i.e. what is considered to be a solution? Is it the optimal time frame to schedule a job or is it merely how much resources one should assign to a job? If so, does the aggregation of all solutions for each job make up a schedule?>

Line 7, it is ambiguous as to what would be in the "one or more plans" under the situation that only zero job is received <i.e. will there even be a plan?>. Furthermore it is uncertain what the relationship is between the "one of more plans" and "a recording schedule" of line 1 <i.e. are they suppose to be the same schedule? If so, consistent names should be used.>. It is further unclear how "one or more plans" are determined <i.e. is it based on a solution? What if there are multiple solutions,for a job?>

Lastly, it is unclear how "a solution" in line 7 is related to "one or more solutions" in line 4 <i.e. is a solution for a plan the same as the "one or more solutions" for the jobs found in line 4? In other words, how does the solutions for a job make up a solution for a plan, especially in the case of more than one jobs, solutions for jobs, and plans of solutions?>.

ii) Claim 5, it is unclear what the purpose of "assigning scores" is <i.e. does the scoring function help to pick out the best plan in the case that there are multiple plans produced?>.

Claims 6, 7 have the same deficiencies as claim 5 above.

iii) Claim 9, line 2, it is unclear how "a preferred plan based on scores" is determined <i.e. does the plan with the highest score get picked?>.

Line 3, it is uncertain as to how scores may be "based on components of each job" <i.e. does a job asking for the best recording quality, for example, gets the best score?>.

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iv) Claim 11, it is not understood as to what the relationship is between "an updated schedule" and "a recording schedule" of line 1 of claim 1 <i.e. is the updated schedule a newer version of the recording schedule?>.

v) Claim 13, it is uncertain as to what the relationship is between "a second user input" and "an input" from line 3 of claim 12 <i.e. where is the first user input? Does the input from claim 12 considered the first user input?>

Claim 14 has the same deficiencies as claim 13 above.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-2, 8-19, 21, 23-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Barton et al., Pub. No. 2002/0118954 (hereafter Barton).

8. As per claim 1, Barton teaches the invention as claimed including a method of determining a recording schedule for a PVR system with resources, comprising:

receiving a first user input requesting zero or more jobs (Para 154);

determining one or more solutions for the zero or more jobs based on a schedule, each solution requiring a set of resources over a set of intervals, wherein a number of resources required is greater than a number of resources available (Para 15, 17);

determining one or more plans, each plan having a solution for each of the zero or more jobs wherein resources used by the zero or more jobs are less than or equal to the number of resources available at each interval (Para 15, 17, 129).

9. As per claim 2, Barton teaches receiving a priority for each job from a user (Para 129).

10. As per claim 8, Barton teaches the step of determining one or more plans includes determining two or more plans (Para 156, lines 1-3).

11. As per claim 9, Barton teaches automatically determining a preferred plan based on scores, wherein the scores are based on components of each of the jobs, the components including at least one element selected from the group including a recording time, a recording quality, a type of program, a relative position in an order a job of the two or more jobs was input, an inclusion 10 of bonus time and a keyword (Para 129).

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12. As per claim 10, Barton teaches receiving a trigger; in response to receiving the trigger, determining one or more new solutions for the zero or more jobs; determining a new plan including one new solution for each job such that the solutions use less than or equal to the number of resources available (Para 162; user action corresponds to trigger).

13. As per claim 11, Barton teaches wherein: the step of receiving the trigger includes receiving an updated schedule from an input (Para 162).

14. As per claim 12, The method of claim 10, Barton wherein: the step of receiving the trigger includes receiving an updated schedule from an input, the input selected from a group including a satellite signal, a cable signal, an antenna signal, and a telephone line signal (Fig 1, unit 111).

15. As per claim 13, Barton teaches wherein: the step of receiving the trigger includes receiving a second user input (Para 162; the input from viewer is constant).

16. As per claim 14, Barton teaches providing a user with the two or more plans; and receiving a second user input that indicates a preferred plan (Para 160).

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17. As per claim 15, Barton teaches determining from the second user input a user priority for at least one job (Para 129).

18. As per claim 16, Barton teaches receiving a third user input adding a new job; determining one or more new solutions for the new job; and determining a new plan including one of the one or more new solutions, wherein determining the plan is based in part on the second user input (Para 129).

19. As per claim 17, Barton teaches wherein: the step of determining one or more plans includes determining the one or more plans based on a pre-defined user preference (Para 129).

20. As per claim 18, Barton teaches filtering the one or more plans including keeping a first plan for presentation to a user and ignoring a second plan so that the second plan is not presented to the user (Para 49).

21. As per claim 19, Barton teaches the first plan has a first set of solutions for the zero or more jobs and the second plan has a second set of solutions for the zero or more jobs, wherein at least one solution for at least one job of the first set of solutions is preferred over a corresponding solution for the at least one job of the second set of solutions (Para 17: resolving conflicts corresponds to the claimed situation).

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22. As per claim 21, Barton teaches presenting the one or more plans to the user (Para 160).

23. As per claim 23, Barton teaches the step of receiving a first user input request zero or more jobs includes receiving a request to record a program (Para 163).

24. As per claim 24, Barton teaches the step of receiving a first user input request zero or more jobs includes receiving a request to accomplish a task (Para 163).

Claim Rejections - 35 USC § 103

25. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

26. Claims 3-7, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barton et al., Pub. No. 2002/0118954 (hereafter Barton) in view of Nourbakhsh et al., Pub No. 2003/000952 (hereafter Nourbakhsh).

27. As per claim 3, Barton does not specifically teach assigning scores to the one or more plans.

However, Nourbakhsh teaches assigning scores to the one or more plans for the purpose of producing multiple schedules and using a score function to pick out the optimal schedule (Para 20) for the purpose of automatically selecting an optimal plan using a scoring system.

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to combine the teachings of Barton with assigning scores to the one or more plans for the purpose of producing multiple schedules and using a score function to pick out the optimal schedule, as taught by Nourbakhsh, because it allows the automatic selection of an optimal plan using a scoring system.

28. As per claim 4, Nourbakhsh teaches automatically determining a preferred plan based on the assigned scores (Para 20).

29. As per claim 5, Nourbakhsh teaches a scoring system that scores each plan and picks out the optimal plan based on given constraints (Para 20). Barton teaches a user assigned priority for each job (Para 129).

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to combine the teachings of Barton, where priority is used to construct a plan, with a scoring system that scores each plan and picks out the optimal plan based on given constraints, as taught by Nourbakhsh, so that one of the constraints is user assigned priority such that scores are assigned based on a user assigned

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priority for each job.

30. As per claim 6, Nourbakhsh teaches the step of assigning scores includes assigning scores based on components of each of the zero or more jobs (Para 21, 37-43).

31. As per claim 7, Nourbakhsh teaches ranking the one or more plans based on the assigned scores (Para 21, lines 40-44).

32. As per claim 20, Nourbakhsh teaches scoring the one or more plans; and filtering the one or more plans such that at least one plan with a higher score than other plans of the one or more plans is presented to a user and at least one plan with a lower score than other plans of the one or more plans is not presented to the user (Para 20). Barton teaches constructing a plan based on user preference (Para 129)

33. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barton et al., Pub. No. 2002/0118954 (hereafter Barton).

34. As per claim 22, Barton does not specifically teach presenting the one or more plans to the user includes presenting the plans in a first category and a second category, the first category including zero or more plans having no null solutions and the second category including zero or more plans having at least one null solution.


However, it would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to have a scheduling plan that may be either feasible or not feasible in the situation that the user is not willing to resolve any conflicts by changing preferences, in which case it would be a null solution.

Conclusion

35. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MengYao Zhe whose telephone number is 571-272-6946. The examiner can normally be reached on Monday Through Friday, 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached at 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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